

REMARKS

Claims 1-4, 7-13, 15-16 and 18 are pending in the application. Claims 1-4, 7-13, 15-16 and 18 have been amended and claims 5, 6, 14, 17, 19 and 20 have been canceled by way of the present amendment. Reconsideration is respectfully requested.

In the outstanding Office Action, additional information was requested by Examiner Cleary; the specification was objected to because it included a hyperlink; claim 11 was objected to due to informalities; the drawings were objected to because Figures 1 and 2 do not contain necessary legends and Figure 2 contains typographical errors; claims, 14, 17 and 20 were rejected under 35 U.S.C. Section 101; claims 5, 6, 14, were rejected under 35 U.S.C. Section 112, 1st paragraph; claims 1-20 were rejected under 35 U.S.C. Section 112, 2nd paragraph; claims 1-4, 7-8, 10-13 and 15-20 were rejected under 35 U.S.C. Section 102(b) as being anticipated by U.S. 4,719,620 (Machino); and claims 1, 17 and 19-20 were rejected under 35 U.S.C. Section 102(b) as being anticipated by U.S. 4,719,620 (Maxemchuk). Reconsideration is respectfully requested.

Request for Information

Additional information was requested by Examiner Cleary. In response, the documents requested in the outstanding Office Action have been submitted herewith.

Specification Objections

The specification was objected to due to the inclusion of a hyperlink. In response, the hyperlink indicated in the outstanding Office Action has been removed.

Drawing Objections

The drawings were objected to because Figures 1 and 2 do not contain necessary legends and Figure 2 contains typographical errors. In response, **Replacement Sheets** for **FIG. 1** and **FIG. 2** are filed herewith to address the outstanding objections. Support for the amendments shown in the **Replacement Sheets** is provided by the original specification, claims and figures. Thus, it is respectfully submitted that the outstanding objections have been overcome and respectfully requested that the objection be withdrawn.

Claim Objections

Claim 11 was objected to due to informalities. Reconsideration is respectfully requested. In response, claim 11 has been amended to correct the typographical error indicated in the outstanding Office Action.

35 U.S.C. Section 101 Rejections

Claims, 14, 17 and 20 were rejected under 35 U.S.C. Section 101. Reconsideration is respectfully requested.

Claim 14, 17 and 20 have been canceled by way of the present amendment. Thus, the rejections to claims 14, 17 and 20 are moot and the outstanding rejection should be withdrawn.

35 U.S.C. Section 112 Rejections

Claims 5, 6, 14, were rejected under 35 U.S.C. Section 112, 1st paragraph. Reconsideration is respectfully requested.

Claim 5, 6 and 14 have been canceled by way of the present amendment. Thus, the rejections to claims 5, 6 and 14 are moot and the outstanding rejection should be withdrawn.

Claims 1-20 were rejected under 35 U.S.C. Section 112, 2nd paragraph. Reconsideration is respectfully requested.

Claims 1-4, 7 - 13, 15-16 and 18 have been amended in accordance to clarify the invention in accordance with the suggestions in the outstanding Office Action. Thus, it is respectfully submitted that the claims are now definite and respectfully requested that the outstanding rejections be withdrawn.

Claims 17, 19 and 20 were rejected under 35 U.S.C. Section 112, 4th paragraph. Reconsideration is respectfully requested. In response, claims 17, 19 and 20 have been canceled by way of the present amendment. Thus, it is respectfully requested that the outstanding rejections be withdrawn.

35 U.S.C. Section 102 Rejections

Claims 1-4, 7-8, 10-13 and 15-20 were rejected under 35 U.S.C. Section 102(b) as being anticipated by Machino. Reconsideration is respectfully requested.

Claim 1 has been amended to clarify the invention. In particular, claim 1 has been amended to recite:

[A]rrangement ~~preferably~~ comprised in a CAN system for making more efficient the utilization of available bandwidth ~~on the~~ a system's bus connection between, at least one of from and/or and to modules incorporated in the system and/or reduction of accuracy requirements of clock functions utilized in the system, the system working with a communication carried out on the bus connection, which communication operates in accordance with rules set up in the system and constitutes a combination of event- driven and time-controlled communication functions, characterized in that the said functions, together with a rule change in the time-controlled communication function, are arranged to achieve the said making at least one of more efficient and/or and the reduction, which rule change is arranged to give rise to deliberate collisions between messages appearing on the bus connection,

wherein with a virtual clock, each message is given a time slot in which the message is transmitted without colliding with another message, and

wherein each of the modules is set in relation to a time of transmission and reception of messages within a given tolerance in relation to the virtual clock and that part of the virtual schedule that relates to the respective modules.

Support for the amendment is provided by paragraph [0013] of the published application which discloses the method of the claimed invention is a scheduling in relation to an ideal, virtual clock, where each message is given a time slot in which it can be transmitted without colliding with another message. In addition, the specification discloses each node is set in relation to the time of transmission and reception of messages within a given tolerance in relation to the virtual clock and that part of the virtual schedule that relates to the respective node.

Machino discloses a signal transmission system which constantly allows data with the top priority to pass preceding others in a bus-type network. In transmitting a packet consisting of a plurality of start-synchronized frames, the bus is monitored for a predetermined period after the first frame transmission.¹ In particular, Machino discloses a signal transmission system in a bus-type network and provides a collision resolution (CR) protocol.² Further, Machino discloses a CR protocol similar to CAN. Like CAN it sees to it that a message with high priority is transmitted before a message with lower priority in case of a collision and the collision does not destroy any message.³

However, Machino nowhere discloses, as claim 1 has been amended to recite:

together with a rule change in the time-controlled communication function, are arranged to achieve the said making at least one of more efficient-and/or and the reduction, which rule change is arranged to give rise to deliberate collisions between messages appearing on the bus connection, *wherein with a virtual clock, each message is given a time slot in which the message is transmitted without colliding with another message, and wherein each of the modules is set in relation to a time of transmission and reception of messages within a given tolerance in relation to the virtual clock and that part of the virtual schedule that relates to the respective modules* (emphasis added).

Therefore, it is respectfully submitted that Machino does not disclose, anticipate or inherently teach the claimed invention and claims 1-4, 7-8, 10-13 and 15 patentably distinguish thereover.

Claims 1, 17 and 19-20 were rejected under 35 U.S.C. Section 102(b) as being anticipated by Maxemchuk. Reconsideration is respectfully requested.

Maxemchuk discloses a variation on a carrier sense multiple access/collision detection (CSMA/CD) system protocol for local area, packet, random access, broadcast networks is disclosed for effectively servicing both voice and data traffic.⁴ However, Maxemchuk nowhere discloses, as claim 1 has been amended to recite:

together with a rule change in the time-controlled communication function, are arranged to achieve the said

¹ Machino at ABSTRACT.

² *Id.* at col. 1, lines 7 – 8; ABSTRACT.

³ *Id.* at ABSTRACT.

⁴ Maxemchuk at ABSTRACT.

making at least one of more efficient-and/or and the reduction,
which rule change is arranged to give rise to deliberate
collisions between messages appearing on the bus connection,
*wherein with a virtual clock, each message is given a time
slot in which the message is transmitted without colliding with
another message, and*
*wherein each of the modules is set in relation to a time of
transmission and reception of messages within a given tolerance in
relation to the virtual clock and that part of the virtual schedule
that relates to the respective modules (emphasis added).*

Therefore, it is respectfully submitted that Maxemchuk does not disclose, anticipate or
inherently teach the claimed invention and claim 1, and claims dependent thereon, patentably
distinguish thereover

Conclusion

In view of the above amendment, applicant believes the pending application is in
condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please
charge our Deposit Account No. 22-0185, under Order No. 21406-00016-US1 from which the
undersigned is authorized to draw.

Dated: October 2, 2008

Respectfully submitted,

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